

REMARKS

These remarks are set forth both in response to the non-final office action mailed August 19, 2003 (the "Office Action"). As this Response has been timely filed within the three-month statutory period, neither an extension of time nor a fee is required. In paragraph 1 of the Office Action, the Examiner has approved of the drawings and no corrections thereto will be required. In paragraphs 2 through 3, however, the Examiner has requested several corrections to the specification to account for grammatical and typographical inconsistencies. Also, in paragraph 4, the form of the preamble of claim 9 has been objected to based upon the confusing construct of the preamble. Moreover, the Examiner has rightfully noted an oversight in claim 12 giving rise to an objection based upon antecedent basis.

In response, and in view of the helpful discussion with the Examiner during the personal interview of October 16, 2003, the Applicants have corrected each noted element of the specification and claims. Of particular note, the Applicants have modified the preamble of claim 9 to comport with the claim language approved by the Federal Circuit in *In Re Beauregard*, 53 F.3d 1583 (Fed. Cir. 1995). Specifically, the preamble of claim 9 now comports with the USPTO guidelines which state, "[A] computer-readable memory that can be used to direct a computer to function in a particular manner when used by the computer is a statutory 'article of manufacture'." 60 Fed. Reg. 28778, 28778 (1995).

Presently, claims 1 through 15 are pending in the Patent Application. In the Office Action, claim 1 has been allowed while claims 2, 4, 7, 9, 11 and 14 have been rejected. Specifically, claims 2, 7, 9 and 14 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent. 5,974,572 to Weinberg et al. ("Weinberg"). Additionally, claims 4 and 11 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Weinberg in view

of U.S. Patent Application No. 2002/0156881 to Klopp Lemon et al. ("Klopp"). Finally, claims 3, 5, 6, 8, 10, 12, 13 and 15 have been objected to only in as much as each depends upon a rejected base claim. In response, the Applicants through undersigned counsel have amended claims 2 through 4 and 9 through 11, and respectfully restate those arguments in support of the patentability of claims 2 through 15 as discussed in the helpful personal interview.

The Applicants have invented a new and non-obvious system, method and apparatus for testing Web applications. Specifically, in accordance with the present invention Web application scenarios can be tested without requiring the deployment of complex client-side testing software. Rather, in the present invention, a server-side load driving mechanism can invoke a series of Web application operations in the Web application based upon a scripted scenario specified in a Web scenario template. Resource intense analysis of Web application responses can be avoided inasmuch as the server-side load driving mechanism can continue to invoke additional Web application operations based not upon the responses to previously invoked operations, but based upon the state of the Web application stored in the server.

Like the Applicants' invention, the Weinberg technology relates to Web application testing. In Weinberg, Web sites can be load tested through the operation of a load testing scenario. The load testing scenario can permit a Web site to be tested according to the browsing behaviors of typical users. To produce the testing scenario, a scenario generation process can parse the server log file of the Web server to extract the browsing history of Web site browsers. See column 33, lines 47-50. Specifically, using Internet Protocol ("IP") addresses and timestamps within the log file, navigation paths for the browsers can be traced to produce a route which includes information about the number of "hits" that occurred on each hyperlink in the Web site. See column 3, lines 25-30. The route list subsequently can be translated into a

scenario which can include a set of test scripts. See column 3, lines 31-32. Subsequently, pre-recorded ones of the test scripts can be used to load test Web sites. See column 3, lines 33-34.

Notably, to create the test scripts, a user can install a "Web Vuser Generator" component in a Web browsing client. The Web Vuser Generator component when used in conjunction with a "Load Wizard" module, can interact with a client-side proxy such as the Mercury Interactive products, Astra Site Test™ and Load Runner™, to intercept both client requests directed to a Web site under test, and also the Web site responses generated in consequence of the client requests. In this regard, to effectively intercept messages transferred between the Web browser disposed in the client computer and the Web server, the Web browser first must be configured to utilize the proxy as an intermediary. See Figure 7. By running requests and responses through the client-side proxy, the test script and load testing processes of Weinberg can be coupled to the proxy for a seamless client-side implementation of the Weinberg invention.

It will be recognized by the skilled artisan that despite the claimed advantages of the Weinberg technology, the Weinberg technology demonstrates the very deficiencies addressed by the Applicants' invention. Specifically, while Weinberg relies exclusively upon a client-side implementation of a load-testing system, the Applicants' invention completely avoids client-side logic. In particular, as stated in page 4 of the Patent Application, "[A] method and system can be provided which can test Web application scenarios without requiring the deployment of complex client-side testing software." Rather, a resource intense analysis of a Web application response can be avoided inasmuch as the server-side load driving mechanism of the Applicants' invention can invoke Web application operations based not upon the Web server responses to previously invoked operations, but based upon the state of the Web application stored in the server. See page 4, lines 8-12.

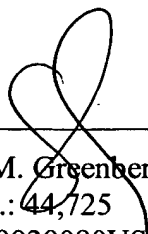
To clarify this important distinction between Weinberg and the present invention, the Applicants have amended claims 2 and 9. Specifically, in both claims 2 and 9, the Applicants have emphasized the invocation of an operation in the Web application based upon the state of the Web application in lieu of invoking an operation in the Web application based upon the intercepted network message. Moreover, the amendments to claims 3 and 10 highlight the complete disregard for the network response to a prior operation in formulating the next operation to be invoked in the Web application. Significantly, these claim amendments address the crux of the Applicants' invention and are outlined textually in the first paragraph of page 4 of the Patent Application and also in the second paragraph of page 8 of the Patent Application.

Considering Weinberg alone, and considering Weinberg in combination with Klopp which contributes to the discussion only the notion of monitoring HTTP transactions, it is fair to state that each of claims 2, 4, 7, 9, 11 and 14 as amended address with particularity the invocation of an operation in a Web application based neither upon a request forwarded by a Web browser, nor upon a pre-stored operation stored in a testing script. Rather, as recited explicitly in claims 2 and 9, the invocation of the operation in the Web application can be based upon state information for a Web application session irrespective of any request or response exchanged between the Web application and a client content browser. Thus, as amended, claims 2, 3, 4, 9, 10 and 11 clearly distinguish past Weinberg and the combination of Weinberg and Klopp.

In view of the foregoing remarks and the Applicants' claim amendments, the Applicants respectfully request the withdrawal of the rejections under 35 U.S.C. §§ 102(b) and 103(a). This entire application is now believed to be in condition for allowance. Consequently, such action is respectfully requested. The Applicants request that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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